

CAREERS IN THE BUILDING TRADES

West and
Southwest
Michigan
Apprentice
Schools

www.wmconstructionalliance.org



TABLE OF CONTENTS

	Page
A Career in the Construction Industry	3
You Can Begin a Career in Construction in Various Ways	4
What are the Salaries in Construction?	5
Women and Minority Opportunities	6
Career Paths.....	7
Frequently Asked Questions	8
Apprenticeship Programs.....	9
Brief Descriptions of Construction Crafts.....	10
Construction Crafts Apprenticeship Opportunities	
Boilermakers	12
Bricklayers	13
Carpenter	14
Cement Mason/Plasterer.....	16
Construction Craft Laborer	17
Electrician	18
Elevator Constructor.....	19
Glazier.....	29
Heat & Frost Insulator	21
Iron Worker	22
Millwright.....	23
Operating Engineer	25
Painter/Drywall Engineer.....	26
Plumber/Pipefitter.....	27
Road Sprinkler Fitter	28
Roofer	29
Sheet Metal Worker.....	30

provided by



140 N. 64th Avenue, Suite 9 • Coopersville, MI 49404
 Ph: 616-837-8080 • Fx: 616-837-8090 • Email: ehaynor@chartermi.net
 Web: www.wmconstructionalliance.org

Constructing a **BETTER** Tomorrow

updated 4-7-11

A Career in the Construction Industry



Look around you. Wherever you are, it doesn't matter, just take a look around and be aware of how the construction industry has literally shaped your surroundings. The streets and sidewalks, utilities, factories, schools, office buildings, houses and apartment buildings, dams, bridges—possibly even the contour of the land—were produced by our industry. It's exciting, challenging, and very demanding work! Options for career opportunities in construction trades are almost limitless.

This site is designed to provide a quick glimpse of some of the trades involved in construction, along with information on how to access the excellent training provided through union apprenticeship and journeyman training programs.

Basic requirements for most union apprenticeship programs are a high school diploma or GED, minimum of 18 years of age, residence in the Local Union's area of jurisdiction, and good health; some do drug testing. Some utilize aptitude or other testing along with interviews to select applicants. Often, openings are advertised in local newspapers, trade newspapers and magazines, and to groups representing women and minorities.

There are some things you should know when considering a career in construction, such as the seasonal nature of the work. Much of the work is outdoor in the heat/cold/wind/rain, and, because construction sites are everywhere, dependable transportation is a necessity.

Additionally, contractors and unions alike expect their workers to be dependable, on time, every time, with no excuses.

Unlike days of old, today's construction workers need more than a strong back. Today, math and reading skills are important elements on the job where there are blueprints to read, grade stakes to interpret, installation and service manuals to follow, angles to calculate, material quantities to determine, and so on. Although it doesn't require a college degree, almost every trade demands good math and reading skills, dedication and caring, good work habits, and dependability.

The benefits, however, make it all well worthwhile! The wage and benefit packages are, of course, excellent. Beyond that, there is the training, not only for apprentices, but on-going programs for journeymen to keep abreast of changes in technology, materials, methods and equipment. Plumbers and pipefitters are, for example, trained to install medical gasses in hospitals and they are keeping up with state-of-the-art technology in HVAC computer controls. There is nothing that can compare with that special pride of seeing a building, bridge or highway that you helped to build still standing when you drive by years later. There is perhaps no other career that offers this special feeling of having made a lasting difference.



All in all, a career in the construction trades can be exceptionally rewarding. Plan now for one of these exciting career opportunities! Stay in school. Develop a good attendance record. Take math and English classes seriously—you will use it someday. Keep your body and your mind healthy. And remember, we look forward to seeing you on one of our crews in the future.

You Can Begin a Career in Construction in Various Ways

High School followed by training in a State Approved Apprenticeship Program. For those men and women who want to enter construction, local and state approved Apprenticeship Programs have been established. These programs normally run three to six years and combine on-the-job training with related instruction in a classroom environment. Apprenticeship Training is a major topic in this publication. You will be learning much more about the crafts and their related Apprenticeship Programs. Completion of an state approved Apprenticeship programs qualifies a person for journey person status. A Journey person describes a reliable, fully trained worker who is ready to take on the full responsibilities of employment in a trade.

High School combined with training in an Industry Approved Career & Technical Education Construction Training Program. Those individuals who determine early on that they want a career in construction can attend career & technical programs in building trades, carpentry, bricklaying, plumbing, construction electricity, welding and other trades. Graduates are provided with lists of local employers and the employers are provided with the names of current graduates. Sometimes students can enter the trade earlier through cooperative training programs or through a Michigan School-to-Registered Training Program. Training in an approved program can make entrance into trade apprenticeship programs easier and can possibly reduce the length of apprenticeship.

High School followed by Technical School or Associate's Degree Program. There are many two-year programs available to people wishing to enter construction that may lead to the management level. These programs provide a background in general practices found in the industry and include courses in surveying, drafting, blueprint reading, construction documents, estimating, construction materials and management techniques.

Area Community Colleges

Glen Oaks Community College, www.glenoaks.edu/
 Grand Rapids Community College, www.grcc.edu/
 Kalamazoo Valley Community College, www.kvcc.edu/
 Kellogg Community College, www.kellogg.edu/
 Lake Michigan College, www.lakemichigancollege.edu/
 Montcalm Community College, www.montcalm.edu/
 Muskegon Community College, www.muskegoncc.edu/
 Southwestern Michigan College, www.swmich.edu/

High School followed by College. College programs in construction management, civil engineering and other related programs prepare graduates who are capable of entering corporate and project management positions with a minimum of on-the-job training. Many college programs have evolved from industry liaison groups and are tough yet practical. Competition for these programs can be intense, and classroom space is limited. Many college programs cover areas dealing with materials, mathematics, surveying, construction methods, hydraulics, planning and scheduling, estimating, cost control, accounting, construction law and labor relations.

Advancement after entering the industry depends on your effort and the needs of your employer. More and more projects of every kind are being planned and carried out, every day, in almost every part of the world. But remember that the construction industry needs qualified people and a high school diploma is a necessary first measure of quality. Stay in school, get a diploma with some career-related experience, then start your career.

Area Four Year Colleges & Universities

Central Michigan University, www.cmich.edu
 Ferris State University, www.ferris.edu
 Western Michigan University, www.wmich.edu



What are the Salaries in Construction?

What can I Earn?

What you will earn will depend on your individual circumstances. Currently the beginning Apprentice in a Building Trades Apprenticeship Program begins at 45% to 50% of the current Journeyman rate. That percentage goes up every year you are in the program, until you reach your Journeyman status.

What does that mean in dollars and cents? You earn while you learn!

Average Journeyman Rate of the 16 Trades in Michigan is approximately \$25.00 per hour. The base rate for first year Apprentices is approximately \$11.00 per hour. Fringe Benefits are over and above. They include, but are not limited to health care benefits, pension, vacation and a training fund.

When you complete an Apprenticeship Program, your Journeyman card takes you to 100% of the current wages. **Your training is part of your apprenticeship, so unlike some one who has gone to a two or four year college program, you won't have a college loan to pay-off with your income – YOU EARN WHILE YOU LEARN!**

Earning Potential in the Construction Industry

Wages in the Construction Industry vary. The following is an average representation of the earning potential of an individual entering into the construction industry:

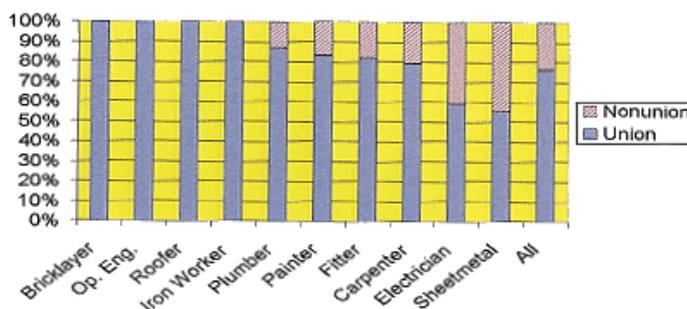
- Beginning Apprentices earn approximately \$600 a week.
- They also get hospitalization insurance for their family, along with other fringe benefits including contributions to a pension plan.

By the time you have completed an Apprentice Program you may have earned \$200,000 and can anticipate earning from \$60,000 to \$70,000 per year as a journeyperson. After working 30 years you will have approximately one million dollars in pension.

MICHIGAN: Unions Account for 76% of All Graduating Apprentices



Percent of All Graduating Apprentices from the 1989-91 Michigan Classes by Union and Nonunion Programs



Women and Minority Opportunities

The construction industry offers many opportunities for rewarding careers, from general laborers and journeypersons to management careers. In the construction process we have careers such as cost control, financial management, quality of construction, construction project administration, project control for complex commercial or industrial construction projects, business management, contractors and law.

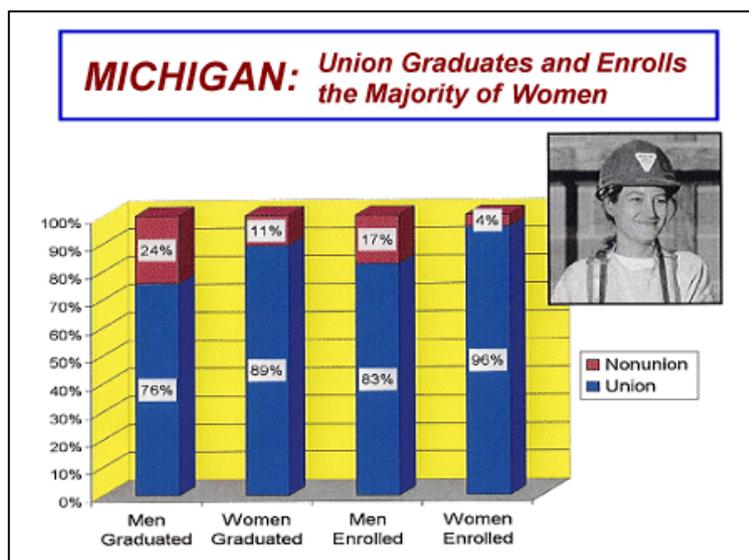
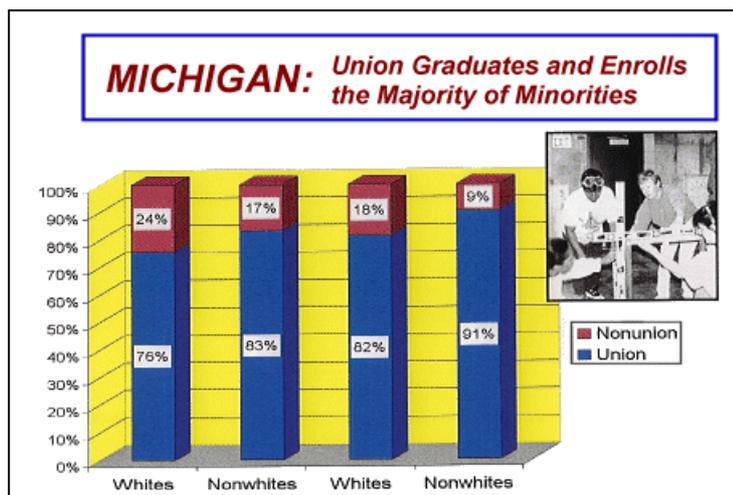
Careers are available in management of commercial, industrial, institutional, civil and military construction in the roles of contractor, developer, subcontractor, owner representative or consultant.



All of the trades listed in this publication are always actively seeking out both minorities and women to come in to their respective local unions.

It is also important to note that the organized construction industry is responsible for the majority of women and minorities in the industry, and for the majority of women and minorities who graduate from apprenticeship programs.

Statistics on this page taken from the Michigan Department of Labor & Economic Growth, 2005.



Career Paths

The following information gives you a little more detail on each type of job.

Apprentice: an apprentice is a worker who learns a craft skill through planned, supervised work on the job, plus related classroom instruction. Moreover, when working on the job, an apprentice is a regular part of the work force and earns wages while acquiring an important skill.

Journeyman: carpenter, mason, operating engineer, etc., a member of one of the building trades who performs the work of a particular craft as directed by the foreman.

Foreman: supervises all journeymen of a particular trade working on a project. Plans work, maintains schedules and ensures procedures as directed by the superintendent.

Draftsman: prepares working plans, drawings and diagrams for engineering and construction purposes.



Construction Engineer: responsible for technical aspects of a project including the design, testing and analysis of specifications and materials, planning, surveying, research and other critical factors in the building process.

Safety Engineer: responsible for setting up job site safety operations, ensuring safety consciousness of employees, ensuring that activities are conducted in accordance with federal and state safety and health regulations and procedures, and provides professional advice on safety of various construction activities.

Estimator: prepares basic data concerning a proposed construction project (usually from plans and specifications) including quantities of materials, man-hours to perform items of work, methods to be used, equipment required, and with the assistance of other office staff members, computes the cost of construction which represents the contractors' competitive bid for the job.

Expediter: maintains construction schedules by reviewing deliveries, scheduling arrival of materials and men at job sites, establishing work priorities, and obtaining necessary clearances.

Purchasing Agent: determines most economical sources for materials, stores, supplies, equipment and parts. Ensures purchase at lowest price consistent with required delivery schedule.

Inspector: inspects the work of contractors to ensure that the requirements of the drawing, specifications and codes for the work are met.

Office Manager: performs or supervises the variety of support services required of a construction business, such as keeping books, preparing payroll, billing clients, and handling mail.

General Superintendent: directs all construction functions for large projects according to established schedules, specifications, methods, and procedures; supervises job superintendent on very large projects or on a variety of smaller projects.

Project Manager: directs all construction functions on very large projects; establishes and develops methods, procedures, schedules, and policies; coordinates the work of all units and divisions; performs such administrative duties as are required for proper completion of the project.

Contractor/Owner: the contractor is usually the owner of the construction company, they can be listed in

one and/or a number of the construction disciplines, i.e., general construction, plumbing and mechanical, electrical, construction manager, etc.

Categories of Construction

Contractors normally specialize in one or more of the following types of construction.

General Building Construction: Erecting office buildings, houses, apartments, plants, schools, hospitals, churches, government buildings...virtually every type of shelter needed by man.

Specialty Construction:

Specialty contracting covers the numerous disciplines in the industry such as mechanical and plumbing, electrical, insulating, glazing virtually everything that goes into the building of a structure.

Highway Construction:

Highways and the related facilities such as bridges, grade separations, culverts, paving, earthmoving, traffic controls and landscaping.

Heavy Construction:

Tunnels, airports, dams, military bases, railroads and flood control projects.

Utilities Construction:

Power plants, pipeline installations, sanitation projects, waterworks and transmission stations.

Frequently Asked Questions

How much time does apprenticeship training take?

You'll spend up to five years on apprenticeship training depending on the trade. During that time you'll be employed in an on-the-job training program. Your classroom work will be 144-400 hours a year.

How does "earn while you learn" work?

You'll earn an apprenticeship salary (beginning at about 40 to 50 percent of a journeyperson's salary) as you complete your classroom work. As you move through each year in the program, your satisfactory progress will be rewarded with an increase in salary. This increase is guaranteed by contract.

How will I know if I like the work?

You will serve part of your apprenticeship on probation, to learn if you are suited to this type of work. Some trades also provide opportunities as a pre-apprentice.

Why do I have to attend classes?

Experienced professionals in the trade agree that the combination of classroom education and on-the-job training results in the best outcome for apprentices and employers. You'll learn why things work the way they do and you'll learn how to apply that knowledge. You'll take what you learn in class and put it to work right away on the job.

When do I achieve journeyperson status?

You'll become a journeyperson when you successfully complete your apprenticeship term. You will refine and add to the knowledge you've built up over your Apprenticeship. At this point your earnings will have increased significantly. As a Journeyperson, you can continue to learn through advanced courses of training.

Apprenticeship Programs

Apprenticeship is a combination of the on-the-job training and related classroom instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation. Apprenticeship Programs are operated on a voluntary basis by employers, employer associations or management and labor groups. The related classroom instruction is given in the program sponsor's training facility or a local technical school or junior college.

What is an Apprentice?

An apprentice is a worker who learns a craft skill through planned, supervised work on the job, plus related classroom instruction. Moreover, when working on the job, an apprentice is a regular part of the work force and earns wages while acquiring an important skill.

The apprenticeship training period for skilled occupations ranges from three to five years. Apprentices are taught the proper use, care and safe handling of the tools and equipment used in connection with their work. To round out their training, classroom work is required in subjects related to the trade.

Men and women age 18 years and older are eligible to apply. Applicants must be physically able to do work of the trade. Some trades require an entry examination. Most trades require applicants to be high school graduates or possess a General Education Development (GED) certificate.

What is a Michigan School-to-Registered Apprenticeship Program?

Michigan's School-To-Registered Apprenticeship (STRA) program has much to offer young people who are looking for rewarding careers *and* employers who are looking for good employees. Participating students must be age 16-19 and enrolled in high school or a GED test preparation program. In the STRA program, the students are employed part-time, and their structured on-the-job training is combined with classroom work. Some construction crafts don't qualify for STRA below the age of 18 because of hazardous occupations limitations as shown by State and Federal law. The STRA program is available through more than 70 certified sites throughout Michigan.

Equal Employment Opportunities

Apprenticeship programs provide equal employment opportunity to all persons, regardless of race, sex, ethnic group or age.

Equal opportunity in apprenticeship means that you will be considered for training without regard to:

- Your race or the color of your skin
- Your national origin
- Your religion or lack of religion
- Your sex

It also means equal treatment in pay, promotions, layoffs and evaluations.

Women are strongly encouraged to find out about the wide range of jobs that can be learned through apprenticeship. Apprenticeship in the building trades offers women excellent opportunities for employment in jobs that are both personally satisfying and well paid. The apprenticeship system provides the opportunity for learning to become a highly skilled worker while receiving wages during the training period.

Apprentices Earn College Credit

Many apprenticeship programs now qualify for college credit.

Apprentices Get Regular Wage Increases

Apprentices can earn while learning; the more they learn, the higher the pay. Most apprentices are paid 40% to 50% of a journey person's wage to start. As they climb the ladder to their final qualifications, their wages are increased at regular intervals. At the end of their term of apprenticeship, they become a journey person and draw full pay for their skill.

Training is Good Insurance

Training in the skilled construction trades is good insurance. In addition to opportunities for promotion and steady employment, it gives you something that no one can ever take away from you - a lifelong increased earning capacity that will enable you to get and keep a well-paying job anywhere in the country. Skilled hands and a trained mind give the owner a strong feeling of security which, in some ways, is better than money in the bank.

A point of interest to those entering the construction industry: at times because of the nature of the industry, jobs may not be available all year. Factors such as the states of the economy, weather, work jurisdiction and your own ability can impact the number of hours you are employed in any given year.

Joint Apprenticeship Committees

The actual selection of apprentices in every skilled building trade is done by members of a Joint Apprenticeship Committee. These are people with considerable experience representing both management and labor. Committee members do all the selecting of applicants.

Brief Descriptions of Construction Crafts

Boilermaker

Boilermakers make, install, and repair boilers, vats, and other large vessels that hold liquids and gases.

Bricklayer

Bricklayers work on commercial and residential projects where they lay bricks, block stone, glass block or terra cotta to build interior and exterior walls, partitions, fireplaces, chimneys, smokestacks and other structures.

Carpenter

A carpenter is a skilled craft worker who performs a wide range of structural woodworking that includes constructing buildings, furniture, and other large objects out of wood.

Cement Mason/Plasterer

Cement masons smooth and finish exposed concrete surfaces on projects such as walls, floors, steps, sidewalks, driveways and roads, primarily in commercial and industrial settings. A Plasterer applies coats of plaster and decorative coverings of other materials to walls and ceilings of buildings to produce finished and/or fireproofed surfaces.

Construction Craft Laborer

Construction craft laborers perform a wide range of non-special trade, construction work and are employed in all areas of commercial, industrial and residential construction.

Electrician

An electrician plans, assembles, installs, connects, repairs, tests and maintains electrical fixtures and control equipment that provide heat, light and power in residential, commercial and industrial buildings. They also install, repair, and test telecommunications equipment (voice) or data communications.

Elevator Constructor

Elevator constructors handle the installation, repair, and maintenance of elevators, escalators, moving walks, dumbwaiters, manlifts, all types of handicap lifts.

Glazier (Glass Worker)

Glaziers cut, fit, and install plate glass, ordinary window glass, mirrors, and other glass items in structures being built, remodeled, or repaired.

Heat & Frost Insulator

Heat and frost insulators apply, prefabricate, mix and dismantle different types of insulation in industrial settings (factories, power plants, etc.)

Iron Worker

Iron workers erect structural steel components, reinforce steel, post tension tendons, install conveyors and robotic equipment and perform reconstructive work on existing structures and bridges.

Millwright

Millwrights install, repair, dismantle, move, and assemble machinery and equipment in an industrial establishment according to layout plans, blueprints, and other drawings.

Operating Engineer (Heavy Equipment Operator)

Operating engineers use various types of power driven machinery to move construction materials, earth, and other materials and to apply asphalt and concrete to roads and other surfaces.

Painter/Drywall Finisher

Painters prepare and paint a wide variety of surfaces in commercial, industrial and residential environments. Drywall Finishers prepare gypsum board walls and ceilings for specific final painting by taping and finishing drywall seams.

Plumber/Pipefitter

Plumbers install, alter and repair water and waste disposal systems. They select the type and size of pipe required for a project and measure, shape and join pipes according to specifications. A Pipefitter also known as a Steamfitter constructs and repairs piping systems that carry water, steam, chemicals and fuel sometimes under high pressure.

Road Sprinkler Fitter

Road sprinkler fitters are pipefitting specialists who install, test, inspect, certify and maintain all types of fire suppression systems in all types of residential, industrial and commercial buildings.

Roofer

Roofers install and remove roofs on buildings and other structures to make them waterproof and weatherproof. Roofers also waterproof or damp-proof walls and other building surfaces. Roofers use materials such as composition shingles, tile, slate and EPDM membrane.

Sheet Metal Worker

A sheet metal worker fabricates and installs a wide variety of construction-related items using flat sheets of metal for residential, commercial and industrial application including heating/ventilation systems, roofing, siding, dust collection, conveyors and other products made from sheet metal.

To learn more about construction skilled craft Apprenticeship opportunities in West and Southwest Michigan, the following pages contain Apprenticeship Training information on each construction craft.

BOILERMAKER

Nature of the Work

A Boilermaker is a highly skilled tradesperson who erects and maintains various types of pressure vessels. These vessels include small boilers in schools and hospitals, coal fired boilers in power generation plants, blast furnaces and basic oxygen furnaces in the steel industry, precipitators and scrubbers which clean the exhaust from these furnaces and boilers, and numerous other tanks and pressurized containment vessels in industrial plants. Welding, burning, heavy and high rigging, and layout work are the most important skills a Boilermaker needs to perform his job.

Working Conditions

A Boilermaker works primarily in plants that are considered heavy industrial. Steel mills, power generation plants for utilities, chemical plants, refineries and paper mills are just a few of the industries that Boilermakers and their contractors service. These plants can also pose dangerous working conditions so safety training is constantly taught and reviewed by the union, the contractor, and the owner. This tripartite alliance has proved very successful in minimizing lost time accidents.

Interest and Personal Qualities

Persons interested in becoming Boilermakers need to be able to follow instructions from their foreman. They must not be afraid of heights or be claustrophobic, and can occasionally expect to work the night shift. Most maintenance in heavy industry is performed around the clock.

General Qualifications

- Age 18 or older
- Minimum education - high school graduate or equivalent
- Must pass a drug screening test at an approved testing site
- Must be of good physical condition to perform the work required
- Upon application must have proof of high school diploma or GED, birth certificate, social security card and documentation of any welding experience.
- Applications are accepted second Tuesday of every month, 1:00 p.m. to 3:00 p.m.

Admission Requirements of the Joint Apprenticeship and Training Committee

Applicants are later contacted to take a written aptitude and general scholastic skills test which is administered under the guidelines set by the U.S. Department of Labor.

Terms of Training

Length of apprenticeship - 4 years.

Classroom work and home studies are required along with on the job training.

Recommended High School Courses

General Math, Geometry, Mechanical Drawing, Welding.

Contact Information / Available Applications

Boilermakers Local 169 Training Center

Contact: Don Cochran

1755 Fairlane Drive

Allen Park, MI 48101

Telephone (313) 584-0566

Fax (313) 584-8777

Web: www.boilermakerslocal169.com/

email: boilermakers@ameritech.net

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

BRICKLAYER

Nature of the Work

The work of the modern Bricklayer touches almost all aspects of building - industrial and commercial building, apartments and homes. A Bricklayer constructs walls, partitions, fireplaces, chimneys and other structural forms from brick or other masonry materials such as firebrick, concrete, cinder or gypsum block, structural tile, terra cotta, and stone. They work with all materials put together with mortar involving the use of such tools as the trowel; chisel; jointer; brick hammer and power saws for cutting bricks. They understand and work from blueprints. They also use measuring, leveling and aligning tools to check their work.

Working Conditions

Much of the work is out of doors and generally depends on suitable weather conditions. Modern construction methods along with heater and plastic enclosures stretch the season for bricklaying construction making it independent of inclement weather. Bricklayers are on their feet all day and do considerable stooping and bending. At times work is done from scaffolding which may be high above the ground.

Interest and Personal Qualities

A person interested in this field would be involved in a variety of duties requiring fairly close tolerances, limits, or standards. Bricklaying requires careful, accurate work by the craftsman. To be a Bricklayer, one should enjoy working with one's hands and accept working outside under many different weather conditions. Good eyesight is especially important to quickly determine lines and level. Manual dexterity is also important.

General Requirements

- Age 18 or older.
- Good physical condition - must be physically capable of performing the work of the trade.
- American citizenship.
- High school diploma or GED

Admission Requirements

- \$25 application fee.
- Complete an application.
- Take reading and math tests.
- Be interviewed by the Board of Trustees.
- Applicant may be required to furnish a statement of physical condition.

Terms of Training

- Length of Apprenticeship - 3 years.
- Minimum Hours of Related Classroom Training - 144 each year.
- Indentured to the Joint Apprenticeship Committee and Assigned to a Local Union.
- Length of Probationary Period - 6 months

Recommended High School Courses

English, General Math, Algebra I, Geometry, Mechanical Drawing, Building Trades

Available Applications

Michigan B.A.C. Training Center
Contact: Howard Hipes
3321 Remy Drive
Lansing, MI 48906
Phone: (517) 886-2221
FAX: 517-886-5450
E-mail: hipes@sbcbglobal.net
Website: www.bac9mich.org/

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

CARPENTER

Nature of the Work

A Carpenter is probably the most widely known of the building trades craftsperson for two reasons: Carpenters are a member of the largest group of building trades workers and are employed in almost every type of construction activity. Through home and industrial building, the work touches the lives of more people than any other craft. Carpenters cut, shape, fasten wood and similar materials. They erect wooden framework in buildings including sub-flooring, partitions and rafters. They install molding, wood paneling, cabinets, window sashes, doorframes, and doors, and hardware, as well as build forms of concrete work, building stairs and laying floors. They use a wide variety of power and hand woodworking tools.

Working Conditions

Since much of the work is done outdoors, working conditions are governed by the weather. The Carpenter does a great deal of standing, lifting, carrying and stooping - some climbing and balance which varies with the job and the particular assignment. Many hazards exist, including possible severe cuts and the possibility of falls.

Interest and Personal Qualities

The Carpenter should enjoy doing precision work, should have pride in their craftsmanship. They must be able to work without close supervision and be able to adapt to a wide variety of working conditions.

General Qualifications

- Age 17 or older.
- Minimum education - high school graduate or equivalent.
- Good physical condition - must be able to perform the work of the trade.
- Manual dexterity and the ability to solve arithmetic problems quickly and accurately.
- American citizenship or declaration of intent

Admission Requirements of JATC

- Medical declaration
- Transcript of high school records and diploma
- Birth certificate
- Written examination by the Joint Apprenticeship Committee
- Personal Interview

Terms of Training

- Length of indentureship - 4 years.
- Minimum hours of related classroom instruction - 168 each year.
- Indentured to the Joint Apprenticeship Committee and assigned to a contractor employer of carpenters.
- Length of probationary period - 90 days.

Recommended High School Courses

Advanced Math, Algebra I, Geometry, Mechanical Drawing, Trigonometry, General Science

Available Applications

Dale Stark, Training Coordinator
 Michigan Carpenters Apprenticeship & Training Fund
 POB 670 Fennville, MI 49408
 Phone: [269-561-8115](tel:269-561-8115)
 Fax: [269-561-8125](tel:269-561-8125)
 Mobile: [269-744-7418](tel:269-744-7418)
 Email: dalestark.mcatf@yahoo.com
 Website: www.realapprenticeship.com

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

ADDITIONAL STATE-WIDE CARPENTER APPRENTICESHIP TRAINING INFORMATION**APPRENTICESHIP TRAINING CENTERS****Fennville Training Center**

Contact: Dale Stark
 4880 126th Street
 P.O. Box 670
 Fennville, MI 49408
 Phone: (269) 561-8115
 FAX: (269) 561-8125
 E-mail: fennjadc@wmwisp.net

Saginaw/Flint Training Center

Contact: David Sincissen
 3160 Commerce Centre Dr.
 Saginaw, MI 48601
 Phone: (989) 755-5856
 FAX (989) 755-5859
 E-mail: saginawjadc@speednetllc.com

Mason Training Center

Contact: Bob Bochenek
 681 Dart Road
 Mason, MI 48854
 Phone: (517) 676-4101
 FAX: (517) 676-4866
 E-mail: lansingjadc@cablespeed.com

Marquette Training Center

Contact: Robert Goodson
 1221 Division Street
 Marquette, MI 49855
 Phone: (906) 225-0703
 FAX: (906) 225-1160
 Bill Gehrke, Millwright Instructor
 E-mail: marquettejadc@chartermi.net
 Phone: (989) 348-8542
 FAX: (989) 348-9292
 E-mail: graylingjadc@i2k.net

Grayling Training Center

Contact: David Sincissen
 2410 Industrial Dr.
 Grayling, MI 49738
 Phone: (989) 755-5856
 FAX (989) 755-5859
 E-mail: graylingjadc@i2k.net

UNION CONTACT INFORMATION FOR**Grand Rapids/Muskegon**

Carpenters' Local #100
 140 N. 64th Ave.
 Coopersville, MI 49404
 888-311-6245

Kalamazoo/Battle Creek/Benton Harbor

Carpenters' Local #525
 3617 Gembrit Circle
 Kalamazoo, MI 49001
 800-655-3907

Northern Lower Peninsula

Carpenters' Local #202
 2410 Industrial Dr.
 Grayling, MI 49738
 989-348-8542

Lansing

Carpenters' Local #1004
 2310 W. Washtenaw St.
 Lansing, MI 48917
 888-502-1004

Jackson

Carpenters' Local #1004
 3101 Allied Dr. Suite D
 Jackson, MI 49201
 517-787-5771

Saginaw/Midland/Bay City

Carpenters' Local #706
 1400 W. Genesee Ave
 Saginaw, MI 48602
 888-683-7706

Flint

Carpenters' Local #706
 6459 Pierson Rd
 Flushing, MI 48433
 810-487-1234

Upper Peninsula

Carpenters' Local #1510
 1219 1st Ave. South
 Escanaba, MI 49829
 800-248-1134

Carpenters' Local #1510
 1221 Division St.
 Marquette, MI 49855
 906-228-291

CEMENT MASON/PLASTERER

Nature of the Work

Cement Mason

Cement masons finish the exposed concrete surfaces of freshly poured floors, walls, sidewalks, foundations, dams, parking garages and lots, runways, warehouses, loading dock floors, roads, and curbs to specified textures or finishes. They level, shape and smooth surfaces using straight edgers or power screeds. Most of the work is in industrial and commercial buildings. Cement masons must know the differing working characteristics of various cement and concrete mixes.

Plasterer

Plasterers apply plaster, cement or acrylic material to the interior and exterior walls and ceilings of hospitals, office buildings, schools, warehouses, residences, shopping centers and large commercial and industrial projects.

Working Conditions

Since most of the work is done outdoors, working conditions are governed by the weather. The work is active and strenuous with most of the work done on the ground or the floor level. The worker is required to stoop, bend, or kneel. Cement Masons work under more pressure, probably, than any other building tradesperson. Once cement is poured, it must be worked before it sets regardless of the time of day or climatic conditions.

Interest and Personal Qualities

Persons entering this occupation should receive satisfaction of tangible results from a job well done. They must be able to work without close supervision and be able to adapt to a wide variety of working conditions. They must be willing to stay on the job until it is finished once the cement is poured.

General Qualifications

- Age 18 or older
- Minimum education - high school graduate or equivalent
- Good physical condition - must be able to perform the work of the trade
- Manual dexterity

Admission Requirements

- Pass drug test
- Have valid transportation
- Personal interview

Terms of Training

- Length of indentureship - 3 years
- Minimum hours of related classroom instruction - 144 hours each year
- Indentured to the Joint Apprenticeship committee and assigned to a contractor

Recommended High School Courses

General Math, Algebra I, Geometry, Mechanical Drawing.

Available Applications

Cement Masons & Plasterers Local 16 Training Center
 Contact: Greg DeJongh
 3815 W. St. Joseph Street
 Suite B-200
 Lansing, MI 48917
 Telephone: (517) 999-3410
 Fax: (517) 999-3412

Greater Detroit Cement Masons
 Joint Apprentice Training Center
 Contact: Andrew Dupont
 1154 E. Lincoln
 Madison Heights, MI 48071
 Telephone: (248) 548-7489
 Fax: (248) 548-0700

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

CONSTRUCTION CRAFT LABORER

Nature of the Work

There are four general categories of work that a CCL (Construction Craft Laborer) might perform; Highway Construction, Commercial Construction, Underground Construction and Environmental Remediation. A CCL could be called upon to check grade for a new road being built, or be asked to build catch basins and lay drain pipe to control watershed during heavy rains. Historically CCL's have worked with other trades; Handling, preparing, and delivering the building materials needed to complete the job. While many CCL's tend to the needs of different trades persons, others perform work related to nuclear power plant decommissioning, environmental clean-up, and GPS guided jobsite layout just to name a few.

Working Conditions

A Construction Craft Laborer is exposed to all weather conditions and is called upon to work at heights and depths up to hundreds of feet above or below ground. Laborers must wear clothing suitable to the climate and job task being performed. Some of the hazardous job tasks performed by CCL's require the use of some very involved Personal Protective Equipment. Because Laborers are required to work under undesirable and sometimes hazardous conditions, they must develop good safety habits.

Interest and Personal Qualities

Every Laborer must have a broad knowledge of safety for the sake of their own protection and their co-workers' protection. A person entering this occupation should be punctual and be willing to perform physically demanding job tasks on a daily basis regardless of adverse weather conditions. They should have good communication skills and take pride in their performance, realizing their responsibilities to their employer and fellow workers.

General Qualifications

- Not less than 18 years of age. Proof of age may be required
- Good physical condition - must be able to perform the work of the trade
- Drug test may be required by the employer
- Reading, understanding, writing and communication ability as would enable the applicant to perform the tasks of a CCL in a safe manner and comprehend the subject matter taught in related instruction and/or on-the-job

Admission Requirements of JATC

- "Intent-to-Hire"- Employer places a newly hired CCL in the apprenticeship program.
- "Selection Procedure"- Applicants go through a selection procedure to be placed in the apprenticeship program

Terms of Training

- Length of apprenticeship program - 4000 on-the-job hours.
- 100 hours of classroom training must be completed for every 1000 hours spent on the job. Classroom training is offered at Michigan Laborers Training and Apprenticeship Institute. The total classroom-training requirement is 400 hours.

Recommended High School Courses

General Math, Mechanical Drawing, Blue Print Reading, Chemistry, Physical Education

Contact Information / Available Applications

Michigan Laborers Training and Apprenticeship Institute

Contact: Lynn Coleman

11155 South Beardslee Road

Perry, MI 48872

Phone (517) 625-4919

Fax (517) 625-4046

Web: www.mltai.org

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

Electrician

Nature of the Work

An Electrician lays out, installs and tests electrical fixtures, and installs electrical wire systems, systems to provide heat, light, power, air conditioning and refrigeration in homes, office building, factories, hospitals and schools. An Electrician also installs conduit, Greenfield and other materials, and connects electrical machinery, equipment and controls in high-rise building and installations. Electricians may be required to work at great heights; or may be required to dig deep trenches and cuts for underground installations. The electrical trade is unique in that it is mechanical, technical, and professional. It must select individuals who have a natural aptitude for using tools, and who are gifted enough to master the intricacies of electrical science. They must keep up with the progress of the industry and master the knowledge of the thousands of installation and maintenance procedures.

Working Conditions

In new construction, electricians move onto the job as soon as the structure begins to take form, installing ground and temporary lights and power. The work is active and strenuous with much of the work done in awkward positions and frequently in cramped quarters. They must do considerable standing, reaching, bending, stooping, climbing, and carrying and lifting in order to install electrical conduit and equipment. They must wear protective clothing to guard against the hazards of working with electricity. They may work in all kinds of weather. The work is interesting and diversified. Electricians may be called upon to work in new and old building, new and old homes and also commercial and industrial construction.

Interest and Personal Qualities

A person interested in becoming an electrician must enjoy working with math problems and be able to work in fairly close tolerances. The electrical industry, by its very nature, places a high degree of personal responsibility on the individual journeyman. While supervision is provided on many jobs, the electrician is often called upon to make decisions regarding the best and safest method of installation to produce a given result.

General Qualifications

- Age 18 or older.
- Minimum education - high school graduate or GED.
- One year of Algebra required.
- American citizenship.
- Good physical condition - must be able to perform the work of the trade

Admission Requirements

- Qualified score on Aptitude test.
- Personal interview.
- Must pass physical exam and drug test.

Terms of Training

- Length of indentureship - 5 years.
- Minimum hours of related classroom instruction - 160 hours.
- Indentured to the Joint Apprenticeship & Training Committee and assigned to an electrical contractor.
- Length of probationary period - 12 months or 2000 hours.
- The term of apprenticeship shall not be less than 8000 hours of employment.

Recommended High School Courses

General Math, Algebra, Geometry, General Science, Trigonometry

Available Applications

Kalamazoo Local 131 JATC, contact Morris Applebey, 3641 East Cork St., Kalamazoo, MI 49001. Telephone: (269) 382-1762. Fax: (269) 382-4810. Web: <http://www.ibew131.com>

South Bend Local 153 (Benton Harbor area) JATC, contact Ron Michaelis, 56365 Peppermint Road, South Bend, IN 46619. Telephone: (574) 233-1721. Fax: (574) 233-1947. Web: <http://www.ibew153.com>

West Michigan Local 275 JATC, contact Dave Kitchen, 140 N. 64th St., Coopersville, MI 49404, Telephone: (616) 837-7149, ext. 4. Fax: (616) 837-1785. Web: <http://www.ibew275.org/>

Battle Creek Local 445 JATC, contact Chris MacCreery, 1375 West Michigan Ave., Battle Creek, MI 49017. Telephone: 269) 660-9170. Fax: (269) 660-0711. Web: <http://www.ibewlu445.com/>

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

ELEVATOR CONSTRUCTOR

Nature of the Work

An elevator constructor has a lot of ups and downs. One minute you're on top of the building. The next thing you know, you're down in the basement. But elevator constructors take the highs and lows in stride. After all, it's their job. Elevator constructors install and maintain elevators, escalators, dumbwaiters, wheelchair lifts, and moving walkways. Often, we take for granted the machinery that moves us effortlessly from one place to another, and yet elevators, escalators, dumbwaiters and moving sidewalks have made our lives much easier and more efficient.

Elevator constructors work on all kinds of elevators, from simple passenger elevators and on enormous and complex industrial elevators. They install and maintain single escalators that move passengers from one floor of a building to another as well as whole systems of elevators and escalators that keep commuters flowing through the subway. Elevator constructors may specialize in construction, maintenance or repair work.

Working Conditions

Elevator constructors work indoors most of the time, but may do some outdoor work. They usually work eight hours a day, Monday through Friday. Although, maintenance and service personnel may be on 24-hour call for specified periods of time. There is some risk of injury from heavy equipment, falls and electrical shocks.

Interest and Personal Qualities

Elevator installers lift and carry heavy equipment and parts, and may work in cramped spaces or awkward positions. Potential hazards include falls, electrical shock, muscle strains, and other injuries related to handling heavy equipment. Because most of their work is performed indoors in buildings under construction or in existing buildings, elevator installers and repairers lose less work time due to inclement weather than do other construction trades workers.

General Qualifications

- Age 18 or older
- Mechanical aptitude
- The ability to work well in a small crew without direct supervision
- The ability to do detailed and precise work
- A willingness to keep up to date with innovations in the field
- High school diploma or GED
- Pre physical evaluation and drug test

Admission Requirements of the Joint Apprenticeship and Training Committee

Applicants are later contacted to take a written aptitude and general scholastic skills test which is administered under the guidelines set by the U.S. Department of Labor.

Terms of Training

- Length of apprenticeship - 4 years.
- Classroom work and home studies are required along with on the job training.

Recommended High School Courses

General Math, Algebra I, Geometry, Mechanical Drawing, Electronics

Contact Information / Available Applications

International Union of Elevator Constructors Local 85
 Contact: Bill Kogelschatz
 5800 Executive Drive
 Lansing, MI 48911
 Phone (517) 882-0100
 FAX (517) 882-1970
 Web: www.iuec85.org/

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

GLAZIER (Glass Worker)

Nature of the Work

Glaziers engaged in construction work, cut and install all types and sizes of glass, such as plate glass of all kinds and thicknesses, clear and heat absorbing window glass, obscure glass, mirrors, leaded glass panels and insulating glass units; also they fabricate and install aluminum entrances, sidelights and show windows. They fit and install plastic and porcelain panels in metal and wood frames. Glaziers install glass and aluminum (windows, curtain walls, shower doors, mirrors, hand rails, skylights, entrances, store fronts, etc.) in new construction, residential and remodeling.

Working Conditions

Glaziers work both indoors and outside depending on the job. Window fabricating and some installations are done indoors; however, glaziers do much of their work outdoors or in unheated areas. Glaziers do a great deal of standing, lifting and carrying.

Interest and Personal Qualities

Those who are pursuing a career as a Glazier should have the ability to communicate and work well with others. Manual dexterity and good eye-hand coordination are required; patience, neatness, and cleanliness are also important. Those in consideration of a career as a Glazier should be able to work at heights. They must have reasonable physical stamina and strength to complete job assignments and be willing to work outside in inclement weather. Good mechanical aptitude and measurement skills are essential.

General Qualifications

- Applicant must be 18 years of age or older and be a U.S. citizen
- Minimum education - high school graduate or GED equivalent
- Good physical condition - must be able to perform the work of the trade
- Must have a valid driver's license and reliable transportation
- The person must be able to travel throughout Michigan

Admission Requirements of JATC

- Medical examination may be required
- Credit for Armed Service - subject to review by committee
- Personal interview
- Credit for experience
- Drug and alcohol test may be required

Terms of Training

- Length of apprenticeship – 4 years (8000 hours)
- Required related classroom instruction
- Indentured to the Joint Apprenticeship Committee
- Probationary period is required

Recommended High School Courses

Technical math, science, mechanics, technical drawing, blueprint reading and sketching and shop are highly recommended.

Who to Contact / Available Applications

Glass & Architectural Metal Workers Local 826

Contact: Jeff Kelley

2817 Corunna Rd.

Flint, MI 48503

Telephone: (810) 397-0799

Fax: (810) 232-2720)

Email: jkelly71@hotmail.com

Web: www.dccouncil26.net/

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

HEAT & FROST INSULATOR

Nature of the Work

Asbestos worker apprentices are trained to become expert insulation mechanics with the competitive skills necessary to meet current and future industry needs. The work covers industrial, commercial, and transportation applications, as well as the expanding field of cryogenics, which involves the use of liquefied gases. Industrial applications include such areas as the chemical process and petrochemical industries. Commercial work covers building insulation, and refrigerated spaces. Transportation includes the insulation of ships, trucks, trailers, and railroad cars. Modern insulation relies on such materials as fiberglass, cork, armaflex, foam, mineral fiber, urethane, calcium silicate, etc. Specially trained asbestos workers are used to remove asbestos and other insulation materials used in the past that can be hazardous.

Working Conditions

Work is done outside or inside in every weather condition imagined. Most of the work requires the ability to climb ladders and work from scaffolds. Climbing and balance, which includes lifting, carrying and stooping varies with each job. All workers are required to follow strict safety guidelines.

Interest and Personal Qualities

Persons interested in becoming an insulator must have mechanical ability and the ability to follow instructions. The apprentice will be working with a mechanic member and must have a good working knowledge of math, must enjoy working with one's hands and have the desire to think for themselves without constant supervision.

General Qualifications

- Minimum age – 18
- Good physical condition – must be able to perform the work of the trade
- Minimum education – high school graduate or equivalent

Admission Requirements of the Joint Apprenticeship and Training Committee

- Birth Certificate
- Physical exam required
- Personal interview
- Credit for experience
- Grade Transcripts
- Drug and alcohol test
- Valid MI driving license

Terms of Training

- Four/Five year apprenticeship
- Classes January through May, Saturdays
- 144 hrs/classroom/year
- 1600 hours on the job worked/year for advancement to next level
- Courses include, pattern cutting, math, scaffold building, metal cutting, blueprint reading, sheet metal layout, and safety training.

Recommended High School Courses

English, General Math, Algebra 1, Geometry, Trigonometry, Mechanical Drawing, General Science and Vocational Training.

Contact Information / Available Applications

Heat and Frost Insulators Local 47
 Contact: Roi Farnham
 300 St. Andrews Rd., Suite 304A
 Saginaw, Michigan 48638
 Telephone: (989) 799-5780
 Fax: (989) 799-5266
 Web: www.heatandfrostinsulatorslocal47.com

Heat and Frost Insulators Local 75
 St. Joe Valley Building Trades Building
 Contact: Randy Zawacki
 1345 Northside Blvd.
 South Bend, IN 46615
 Telephone: (574) 282-1650
 Fax: (574) 282-8032

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

IRON WORKER

Nature of the Work

The Iron Worker is a craftsperson who fabricates, erects, assembles and installs fabricated structural metal products, usually large steel beams, in the erection of industrial, commercial or large residential buildings. The Structural Iron Worker erects the steel framework of bridges, buildings and other structures including metal storage tanks and overhead crane runways that support heavy equipment. The Reinforcing Iron Worker (rodman) sets steel bars of steel mesh in concrete forms to strengthen concrete in buildings and bridges. The Ornamental Iron Worker installs curtain walls, window sash, overhead doors, metal stairways, catwalks, gratings, grills, screens, fences and decorative iron work.

Working Conditions

With the exception of some ornamental ironwork, remodeling and repair work, and on occasions where temporary shelters can be set up, most of the work is done out of doors. Most iron work can be carried on year round except in instances of very severe weather. Because an Iron Worker risks injury, such safety devices as nets, safety belts, and scaffolding are used. An Iron Worker does a great deal of climbing, balancing, and reaching.

Interest and Personal Qualities

An Iron Worker must receive satisfaction from tangible productive results and must be able to work to prescribed close tolerances and rigid standards. Naturally, a person cannot be afraid of working in high places and must also have an acute awareness of the danger to themselves and be willing to assume responsibility for the safety of fellow workers.

General Qualifications

- Age 18 years or older
- Minimum education - high school graduate or equivalent
- Good physical condition - since the materials used in the Iron Working trade are heavy and bulky, above average physical strength is necessary. Agility and a good sense of balance is also required
- American citizenship

Admission Requirements of JATC

- Completed questionnaire
- Medical examination
- Aptitude test
- Drug test
- Personal interview
- High School diploma or equivalent

Terms of Training

- Length of indentureship - 4 years.
- Minimum hours of related classroom instruction - 204 hours each year.
- Indentured to Joint Apprenticeship committee and assigned to a general contractor or a contractor employer of Iron Workers.
- Length of probationary period – 500 work hours.

Recommended High School Courses

Drafting, Welding, Industrial Arts

Available Applications

Ironworkers Local 340
Multi Trades Skill Center
Contact: Dane Bowers or Ken Dumas
510 ½ East Columbia Avenue
Battle Creek, MI 49015
Phone (269) 962-4477
FAX (269) 963-7633



All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

MILLWRIGHT

Nature of the Work

The millwright is a construction mechanic whose skills are in the areas of moving, leveling, aligning and installing large and complex machinery. The millwright's scope of work includes rigging; erecting; splicing belts; cleaning, lubricating and replacing gears; welding, fabricating and installing usually large equipment or machinery, including conveyor systems, turbines, generators, and automated systems.

Working Conditions

Millwrights generally work eight-hour days. Apprentices usually start out helping journeymen with basic tasks like material handling and move into more sophisticated jobs as their knowledge and skills increase. Although millwrights work indoors much of the time on installation and maintenance work, their duties also involve working on the outside of buildings and other structures, in situations often requiring the use of scaffolding. Millwrights work with a variety of hand and portable tools and frequently cut, join and fasten metal construction materials using welding equipment and oxy-acetylene torches.

Interest and Personal Qualities

Basic computer skills are important as more and more machinery controls and equipment testing become computerized. Good communication and analytical skills as well as problem solving skills, working in a team environment, planning and efficiency are key aspects of the job. Manual dexterity and good hand-eye coordination are important. Good physical condition is critical since heavy lifting and climbing may be required.

General Qualifications

- Applicant must be 18 years of age or older and be a U.S. citizen
- Minimum education - high school graduate or GED equivalent
- Good physical condition - must be able to perform the work of the trade
- Must have a valid driver's license and use of a car
- The person must be willing to travel throughout the counties of Michigan

Admission Requirements of JATC

- Medical examination may be required
- Credit for Armed Service - subject to review by committee
- Personal interview
- Credit for experience
- MUST protocol will be followed including a drug screen
- Applicants accepted into the program will be required to become members of a Michigan Regional Council of Carpenters millwright union affiliate

Terms of Training

- Length of apprenticeship – 4 years (8000 hours)
- Minimum hours of related classroom instruction – 660 hours each year
- Indentured to the Joint Apprenticeship Committee
- 30-day probationary period

Recommended High School Courses

Technical math, science, mechanics, technical drawing, blueprint reading and shop are highly recommended.

Who to Contact / Available Applications

APPRENTICESHIP TRAINING CENTERS

Western and Northern Michigan

Fennville Training Center

4880 126th Street

P.O. Box 670

Fennville, MI 49408

Phone: (269) 561-8115

Fax: (269) 561-8125

Contact: C. J. Hicks

E-mail: fennjatc@datawise.net

Website: www.realapprenticeship.com

Applications for Western and Northern Michigan apprenticeships are accepted throughout the year. Contact the Training Center or Local Union in your area for application information.

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

ADDITIONAL STATE-WIDE MILLWRIGHT APPRENTICESHIP TRAINING INFORMATION

APPRENTICESHIP TRAINING CENTERS

Marquette Training Center

Contact: Bill Gehrke
1221 Division Street
Marquette, MI 49855
Telephone: (906) 225-0703
Fax: (906) 225-1160
E-mail: marquettejatc@chartermi.net
Web: www.realapprenticeship.com

Detroit and Southeastern Michigan

Contact: Matthew (Skip) Stransky
Millwright Institute of Technology
27555 Mound Rd.
Warren, MI 48092
Telephone: (586) 573-4660
Fax: (586) 573-2468
E-mail: mstransky@millwrights1102.org
Web: www.realapprenticeship.com

Detroit and Southeastern Michigan

Applications must be picked up in person by the applicant, usually during the first two weeks of the year. Please telephone inquiries in late-December or early-January for exact times and dates.

UNION CONTACT INFORMATION

Kalamazoo Area

Millwright Local #1102
3617 Gembrit Circle
Kalamazoo, MI 49001
Telephone: (800) 434-0049

Western & Northern Area

Millwright Local #1102
140 N. 64th Ave.
Coopersville, MI 49404
Telephone: (800) 405-1213

Flint Area

Millwright Local #1102
6459 Pierson Rd.
Flushing, MI 48433
Telephone: (810) 487-6455

Upper Peninsula

Carpenter/Millwright Local #1510
1219 1st Ave. South
Escanaba, MI 49829
Telephone: (800) 248-1134

Detroit and Southeastern Michigan

Millwright Local #1102
23401 Mound Road
Warren, MI 48092
Telephone: (586)-756-3610

Marty Hall, Business Agent, Phone: (269) 383-6163

OPERATING ENGINEER (Heavy Equipment Operator)

Nature of the Work

Operating Engineers are the people who operate and maintain various types of power driven construction machines, such as bulldozers, cranes, pumps, pile drivers, asphalt and concrete plants, derricks, rollers, graders, pavers, and tractors which dig, scrape and move great amounts of earth and hoist building materials. Some machines require the operators to turn valves, adjust hand wheels and press pedals to operate the machines and control the attachments. Other machines, such as cranes, require the constant use of both hands and both feet. Operating Engineers may also be required to service their machines and move the machines from one construction site to another.

Working Conditions

Operating Engineers should enjoy working with machines and equipment and be mechanically inclined. They must be able to do routine, repetitive work and work either as a team on large projects or alone. They should be able to withstand the jolting and vibration of the machines and must have an interest in and the ability to learn correct methods of handling the powerful equipment in a safe manner. The job demands good eyesight, muscular coordination and depth perception.

Interest and Personal Qualities

All work is performed in the open, except for a few machines equipped with enclosed cabs. Earth excavating and grading equipment operators and road building equipment operators generally work from early spring until the fall freeze and shut down only when it rains. The work might be dusty and dirty and they may have to travel long distances to work.

General Qualifications

- Age - not less than 18 years of age.
- Physically fit for the work of the trade as determined by a doctor's examination.

Admission Requirements of JATF

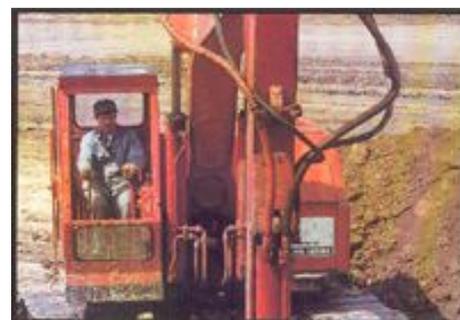
- Application
- Drug Test
- High School Transcripts and GED Certificate if person did not graduate
- Valid Michigan Drivers License
- Military Service Record of honorable discharge (if applicable)

Terms of Training

- Length of apprenticeship – Minimum of three years or 6000 hours.
- Minimum hours of related training and classroom instruction - 200 hours each year.
- Length of probationary period – 90 days.

Who to Contact/Available Applications

Operating Engineers Local 324
 Journeyman & Apprentice Training Fund, Inc.
 Contact: Lee Graham
 275 East Highland Road
 Howell, MI 48843
 Telephone: (517) 546-9610
 Fax (517) 546-9793
 Email: lee.grapham@iuoe324.org
 Web: www.iuoe.324.org



All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

PAINTER/DRYWALL FINISHER

Nature of the Work

Painters and drywall finishers prepare surfaces of buildings and other structures and then apply paint by means of brushes, rollers or sprayers. They work with varnish, enamels, lacquer and other materials. Painters and drywall finishers may also paint interior rooms or cover walls with paper, fabric, vinyl or other materials (paperhanger). The painters must be able to mix paints as well as do sandblasting and water blasting.

Working Conditions

Painters and drywall finishers work both indoors and out. Outside work is done in relatively mild weather. In some jobs, especially maintenance and redecoration of offices and building, the painter and drywall finisher may be required to work evenings or weekends. Work can be seasonal; however, new materials and methods tend to give more steady employment throughout the year. Physical and health hazards include the dangers of poisoning, falling from ladders and scaffolds, breathing paint fumes and dust. The work involves standing, bending, climbing and working with arms over the head most of the time.

Interest and Personal Qualities

Painters and drywall finishers must have good manual dexterity, neat work habits and not be afraid of working at heights. They must be able to do basic math. Painters and drywall finishers should not be allergic to paint fumes, toxic materials, or spray dust. An artistic sense, good eyesight, and a sense of color are necessary to do a first class job.

General Qualifications

- Applicant must be at least 18 years of age and be a U.S. citizen
- Minimum education - high school graduate or GED equivalent
- Good physical condition
- Reliable transportation
- No aversion to working at heights

Admission Requirements of JATC

- Medical examination required - eye exam (no color blindness)
- Credit for Armed Service - subject to review by committee
- Personal interview
- Credit for experience
- Drug and alcohol test may be required

Terms of Training

- Length of apprenticeship – 3 years
- 144 hours of related classroom instruction
- Indentured to the Joint Apprenticeship Committee
- 6 month probationary period

Recommended High School Courses

Math, science, wood working/finishing and blueprint reading are highly recommended.

Who to Contact / Available Applications

Painters & Allied Trades Local 312 & 845
 Contact: Jeff Kelley
 2817 Corunna Rd.
 Flint, MI 48503
 Telephone: (810) 397-0799
 Fax: (810) 232-2720
 Email: jkelly71@hotmail.com
 Web: www.dccouncil26.net/

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

PLUMBER/PIPE FITTER

Nature of the Work

Plumber – Responsible for the installation of water line systems to kitchens, bathrooms, lavatories, etc., in residential, commercial, and industrial buildings. Also installs natural gas and air lines. Assembles, installs, and repairs pipes, fittings and fixtures according to specifications and plumbing codes.

Measures, cuts, threads, bends, install and tests pipes and pipefittings. Works according to blueprints, specifications, and working drawings to perform the work required in sequence of installation.

Pipe fitter – Installs piping systems that carry hot water, steam, air or other liquids or gases needed for industrial production, or other uses. Installs either high or low pressure systems, especially in industrial and commercial buildings. Lays out, fabricates and assembles pipes from drawings, blueprints and specifications. They also work on pipes for heating and cooling systems and install automatic fire-sprinkler systems in buildings.

Working Conditions

The work is active and sometimes strenuous. Usually Plumbers/Pipe Fitters work indoors, but sometimes outdoors, sometimes on a ladder or scaffold, in trenches and in unfinished sections of new buildings. Often, work is done in cramped, wet or dirty locations. Frequently, it is necessary to stand for long periods. Occasionally, the Plumber/Pipe Fitter works in uncomfortable positions in relatively inaccessible places.

Interest and Personal Qualities

A person wishing to enter this type of work should be able to understand detailed, written and verbal instructions and should be able to plan ahead and visualize completed projects. Persons should enjoy working with their hands and accept working outside under adverse weather conditions. They must have the ability to solve arithmetic problems quickly and accurately.

General Qualifications

- Age 18 or older
- Minimum education - high school graduate or equivalent
- American citizenship
- Good physical condition - must be able to perform the work of the trade

Admission Requirements of JATC

- Aptitude test
- Physical examination on demand
- Personal interview

Terms of Training

- Length of indentureship - 5 years.
- Minimum hours of related classroom instruction - 216 hours each year.
- Indentured to the Joint Apprenticeship Committee and assigned to a contractor.
- Length of probationary period - 1 year.

Recommended High School Courses

General Math, Algebra, Geometry, Mechanical Drawing, Trigonometry, General Science, Physics.

Who to Contact/Available Applications

West Michigan Plumbers, Fitters & Service Trades LU No. 174
 Contact: Jerry Hines
 1008 O'Malley Dr.
 Coopersville, MI 49404
 Telephone (616) 837-0222
 Fax: (616) 837-1222
 Email: jhines@ua174.org
 Web: www.ua174.org

Plumbers & Pipefitters LU 333 (Lansing, Jackson & Battle Creek)
 Contact: John Reilly
 3101 Allied Dr. – Suite A
 Jackson, MI 49201
 Telephone: (517) 784-1106
 Fax: (517) 784-1147
 Email: jreillyjr@local333.org
 Web: www.ua333.org

Plumbers, Pipefitters & HVACR LU 357
 Contact: Tom Willson
 11847 Shaver Rd.
 Schoolcraft, MI 49087
 Telephone: (269) 679-2570
 Fax: (269) 679-2571
 Email: twillson@ualocal357.com
 Web: www.ualocal357.com

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

ROAD SPRINKLER FITTER

Nature of the Work

Road Sprinkler Fitters are pipefitting specialists in fire protection. Sprinkler Fitters install, test, inspect, certify and maintain all types of fire suppression systems in all types of buildings and structures, including residential, industrial and commercial. The career of the Road Sprinkler Fitter can provide a range of opportunities for achievement. Once an apprentice successfully completes the apprenticeship program and becomes a journeyman, many opportunities lie ahead. You can work as a foreman, move up to superintendent or even move into management with a company. Being identified as a Sprinkler Fitter is both rewarding and fulfilling.

Working Conditions

Road Sprinkler Fitters work in a construction environment on new and existing projects. The work week for Sprinkler Fitters is normally 40 hours.

Interest and Personal Qualities

Persons interested in becoming Road Sprinkler Fitter should have the ability to follow written and verbal instructions and should be able to plan ahead and visualize completed projects. A good working knowledge of math along with mechanical drawing is an asset. The understanding of blueprints and the ability to work in close tolerances are necessary. A person wishing to enter this type of work should be able to understand detailed instructions and they must also enjoy working with their hands and have the desire to think for themselves without constant supervision.

General Qualifications for Apprenticeship Applicants

- Must be at least 18 years of age and a copy of proof of age is required.
- Must have a high school diploma or GED.
- Must be physically fit to do the work of the trade.
- A copy of your Military Discharge Form DD-214, if applicable.
- Must pass a physical and a drug/alcohol test that is paid for by the employer.

Admission Requirements of JATC

- Credit for Armed Service - subject to review
- Personal interview
- Prior experience credit given

Terms of Training

- Length of apprenticeship - 5 years
- Mandatory 19 course related training correspondence study through Penn State University.
- Indentured to the Joint Apprenticeship Committee.
- Six month probationary period.

Recommended High School Courses

General Math and Mechanical Drawing

Who to Contact / Available Applications

Application is made at an area contractor. A list can be obtained from the Local 669 Joint Apprenticeship Training office or your Local 669 Business Agent. The contractor will explain the interview procedure.

Road Sprinkler Fitters Local 169
 Contact: Eric L. Packard
 Telephone (410) 312-5202
 Email: epackard@jatc.org
 Web: www.sprinklerfitters669.org

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

ROOFER

Nature of the Work

Roofers specialize in putting roofs on buildings and other structures to make them waterproof and weatherproof. They apply composition shingles, tile, slate and composition roofs. They use modern equipment to handle their materials, thereby lessening the physical exertion that was formerly required. Roofers are also called to waterproof and damp-proof walls and other building surfaces.

Working Conditions

Roofers work outdoors in all kinds of weather and shut down only when weather is severe. Craftsmen do a great deal of climbing, kneeling, standing, and walking.

Interest and Personal Qualities

A Roofer should have no fear of height, a good sense of balance, and a better-than-average sense of safety for himself and his co-workers. They should enjoy working with their hands and accept working outdoors, sometimes under unpleasant working conditions. Those who are pursuing a career as a Roofer should have the ability to communicate and work well with others. Roofers must have the appropriate physical stamina and strength to complete job assignments and be willing to work outside in inclement weather. Good mechanical aptitude and measurement skills are essential.

General Qualifications

- Applicant must be at least 18 years of age and be a U.S. citizen
- Good physical condition - must be able to perform the work of the trade
- Must have reliable transportation
- The person must be able to travel throughout Michigan

Admission Requirements of JATC

- Medical examination may be required
- Credit for Armed Service - subject to review by committee
- Personal interview
- Credit for experience
- Drug and alcohol test may be required

Terms of Training

- Length of apprenticeship – 4 years
- 144 hours of related classroom instruction
- 6 month probationary period

Recommended High School Courses

Technical math, science, mechanical drawing, blueprint reading and shop are highly recommended.

Who to Contact / Available Applications

Roofers Local 70 Apprentice School
 Contact: E. James Bell
 1451 Old Pinckney Road
 Howell, MI 48843
 Telephone: (517) 548-4836
 Fax (517) 548-4912
 Email: apprenticeship@rooferslocal70.com
 Web: www.rooferslocal70.com

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

SHEET METAL WORKER

Nature of the Work

The Sheet Metal Worker is a vital part of the construction team. These workers build products from flat sheets of metal and then install the finished product. The Sheet Metal Worker is responsible for the heating, air conditioning, ventilation and exhaust system ducts in a modern building. They are also responsible for the heating, air conditioning, electronic air cleaning and humidification duct work in new homes. This trade includes the application of all outside architectural sheet metal. Commercial and residential items such as fascia, chimney flashing, valleys, gutters, downspouts and metal roofs are made from metal of various thicknesses depending on how it is to be used. Another category of sheet metal work is the making and installation of kitchen equipment, counters, hoods, tables, cabinets and related exhaust systems. Also, industrial work requiring sheet metal fabrication associated with dust collection, machine guarding, chutes and conveyors is performed by Sheet Metal Workers.

Working Conditions

The Sheet Metal Worker does a great deal of shop work compared to other construction tradespersons, by fabricating sheet metal in the shop. It is then delivered to the job for installation. On a new structure, a craftsperson works both inside and out at the construction site. Much of this work requires the ability to climb ladders and work from scaffolds. A Sheet Metal Worker must always be safety conscious because they can be cut by the tools they use or by the sharp edges of the metal with which they work.

Interest and Personal Qualities

Persons interested in becoming Sheet Metal Workers must have mechanical ability and the ability to follow instructions. The apprentice always works with a journeyman. A good working knowledge of math along with mechanical drawing is an asset. The understanding of blueprints and the ability to work in close tolerances are necessary. They must also enjoy working with their hands and have the desire to think for themselves without constant supervision.

General Qualifications

- Age 18 or older
- Minimum education - high school graduate or equivalent
- Good physical condition - must be able to perform the work of the trade
- Proof of citizenship

Admission Requirements of JATC

- Medical examination may be required
- Credit for Armed Service - subject to review by committee
- Personal interview
- Credit for experience
- Drug and alcohol test may be required

Terms of Training

- Length of apprenticeship - 4 years (all years require day classes).
- Minimum hours of related classroom instruction - 204 hours each year.
- Indentured to the Joint Apprenticeship Committee.
- Length of probationary period - 1,000 hours.

Recommended High School Courses

General Math, Geometry, Trigonometry, Mechanical Drawing, Physics, General Science.

Who to Contact / Available Applications

Grand Rapids/Muskegon

Sheet Metal Workers Local 7, Zone 2
 Contact: Rodney Bulthouse
 221 S. Quarterline Road
 Muskegon, MI 49442
 Telephone (231) 777-0252
 Fax (231) 777-0549
 Email: rbulthouse@yahoo.com
 Web: www.smwlu7.org/

Lansing/Jackson/Battle Creek

Sheet Metal Workers Local 7, Zone 1
 Contact: Dale Edwards
 1612 Brooks Dr.
 Marshall, MI 49068-9587
 Telephone: (269) 781-7183
 Fax: (269) 781-7197
 Email: Sheetmetal7@smwlu7.org
 Web: www.smwlu7.org/

All applicants are afforded equal opportunity without regard to race, religion, color, sex, national origin, age or disability.

About Us

The West Michigan Construction Alliance (WMCA) is a 501(c)(6) non-profit corporation. We are a labor-management organization composed of construction contractor organizations, contractors, organized labor and affiliate members. The WMCA is committed to a program of quality craftsmanship and professional contracting. The Alliance was formed in 2003.

The primary purpose of the Alliance is to promote and market the advantages of the organized construction industry in West and Southwest Michigan in order to provide the highest quality, most cost effective and safest delivery of our products and services to our customers/owners. To achieve this purpose, the WMCA, its constituent members and workers are committed to:

1. Achieving a better understanding of the needs of our customers and enhancing the quality of our services through continuous improvements.
2. Establishing and providing a forum for all segments of West Michigan's organized construction community to facilitate more cooperative, productive and safe work environments for the benefit of all construction alliance members, workers and customers.
3. Publicizing and promoting the many services and benefits that the West Michigan organized construction industry provides to both its customers and communities.